AMENDMENTS TO THE CLAIMS

1. (Canceled) A method of increasing insulin sensitivity in a human or non-human subject, the method comprising the steps of:

administering an agent for reducing stearoyl-CoA desaturase 1 (SCD1) activity in the human or non-human subject to increase insulin sensitivity; and

measuring insulin sensitivity and observing an increase in insulin sensitivity following a reduction in SCD1 activity.

2. (Canceled) The method of claim 1, wherein the agent reduces SCD1 activity by reducing SCD1 protein level.

3. (Canceled) The method of claim 2, wherein the agent reduces SCD1 protein level by inhibiting the transcription of a SCD1 gene.

4. (Canceled) The method of claim 3, wherein the agent is selected from the group consisting of a thiazoladinedione compound and a polyunsaturated fatty acid to the subject.

5. (Canceled) The method of claim 4, wherein the thiazoladinedione compound is selected from the group consisting of BRL49653, Pioglitazone, Ciglitazone, Englitazone and Troglitazone.

6. (Currently amended) ~~The method of claim 4~~ A method of increasing insulin sensitivity in a human or non-human subject, the method comprising the steps of:

administering an agent for reducing stearoyl-CoA desaturase 1 (SCD1) activity in the human or non-human subject to increase insulin sensitivity; and

measuring insulin sensitivity and observing an increase in insulin sensitivity following a reduction in SCD1 activity, wherein the agent is a polyunsaturated fatty acid ~~is~~ selected from the group consisting of dodecahexaenoic acid and arachidonic acid.

7. (Currently amended) ~~The method of claim 2~~ A method of increasing insulin sensitivity in a human or non-human subject, the method comprising the steps of:

administering an agent for reducing stearoyl-CoA desaturase 1 (SCD1) activity in the human or non-human subject to increase insulin sensitivity; and

measuring insulin sensitivity and observing an increase in insulin sensitivity following a reduction in SCD1 activity, wherein the agent is an antisense oligonucleotide for SCD1.

8. (Currently amended) ~~The method of claim 1~~ A method of increasing insulin sensitivity in a human or non-human subject, the method comprising the steps of:

administering an agent for reducing stearoyl-CoA desaturase 1 (SCD1) activity in the human or non-human subject to increase insulin sensitivity; and

measuring insulin sensitivity and observing an increase in insulin sensitivity following a reduction in SCD1 activity, wherein the agent reduces SCD1 activity by inhibiting enzymatic activity of SCD1.

9. (Previously presented) The method of claim 8, wherein the agent is an SCD1 inhibitor.

10. (Currently amended) The method of claim 9, wherein the agent that inhibits enzymatic activity of SCD1 is an anti-SCD1 antibody.

11. (Currently amended) The method of claim 8, wherein the agent that inhibits SCD1 enzymatic activity inhibits a protein selected from the group consisting of a cytochrome b_5 protein, a NADH-cytochrome b_5 reductase protein, and a terminal cyanide-sensitive desaturase protein.

12. (Canceled) A method for identifying an agent that can increase insulin sensitivity in a human or non-human subject, the method comprising the steps of:

providing a preparation that contains SCD1 activity;

contacting the preparation with a test agent;

measuring SCD1 activity and comparing the activity to that of a control preparation that is not exposed to the test agent, wherein a lower than control activity indicates that the agent can increase insulin sensitivity in a human or non-human subject.

13. (Canceled) A method for identifying an agent that can increase insulin sensitivity in a human or non-human subject, the method comprising the steps of:

administering a test agent to the human or non-human subject; and

determining the effect of the agent on the SCD1 activity in the subject, wherein a reduction in SCD1 activity caused by the agent indicates that the agent can increase insulin sensitivity in the subject.